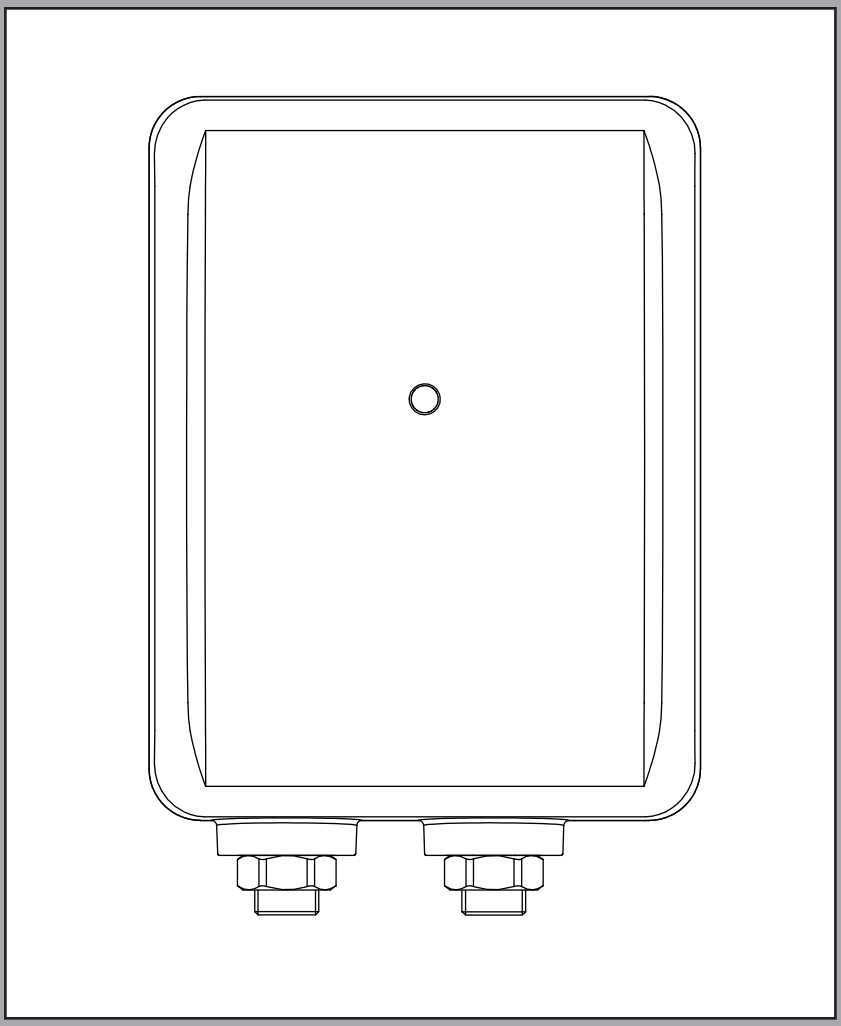
HEATRAE SADIA®

The quality name in water heating



Multipoint® Instantaneous

Fitting Instructions and User Guide

INTRODUCTION

Thank you for purchasing a Heatrae Multipoint Instantaneous. The unvented pressure system water heater is manufactured to the highest standards and has been designed to meet all the latest relevant safety specifications.

This Heatrae Multipoint Instantaneous water heater must be installed (Sections 1-4), commissioned (Section 5) and maintained (Section 7) by a competent person. Please read and understand these instructions prior to installing your Heatrae Multipoint Instantaneous. Particular attention should be paid to the section headed important installation points (Section 1)

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

COMPONENT CHECKLIST

Before commencing installation check that all the following components have been supplied with your Multipoint Instantaneous water heater.

- Heater
- Fixing screws and plugs
- Pressure relief valve 1MPa (10bar)
- Tee piece
- Installation and User Instructions

TECHNICAL SPECIFICATIONS

Model numbers
7.0kW - 95 050 424
9.0kW - 95 050 425
12.0kW - 95 050 426

Electrical rating
6.4 - 7.0kW 230 - 240V ~
8.2 - 9.0 kW 230 - 240V ~
11.0 - 12.0kW 230 -240V ~

Rated pressure

Minimum supply pressure	0.1Mpa (1 bar)
Maximum supply pressure	0.7Mpa (7 bar)

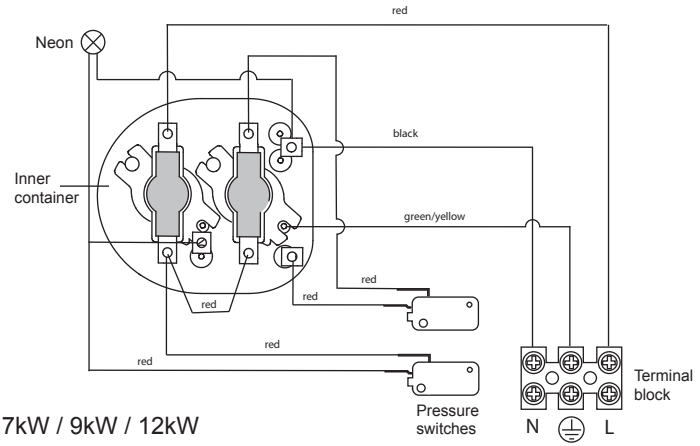
Enclosure rated
IP X5

Materials
Backplate, cover - ABS
Element(s) - copper sheathed rod type

Dimensions
Height - 210mm
Width - 160mm
Depth - 104mm

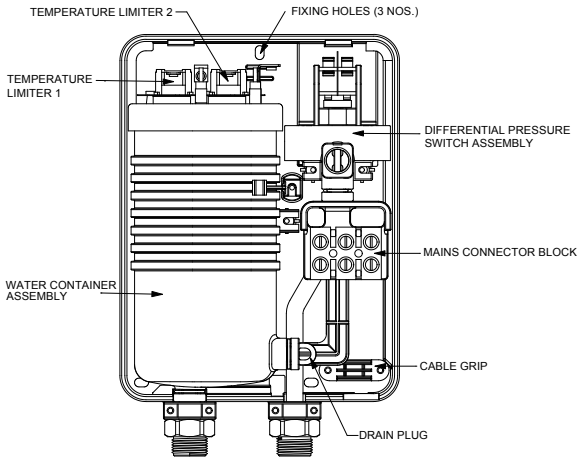
STANDARDS AND APPROVALS

Complies with the requirement of EN 60335-2-35.
British Electro technical Approvals Board (BEAB) approved.
Complies with European Community Directives (CE).
Complies with UK water regulations, kiwa approved.



7kW / 9kW / 12kW

Figure 1 - Wiring Diagram



7kW / 9kW / 12kW

Figure 2

1.0 IMPORTANT INSTALLATION POINTS

1.1 Products manufactured by Heatrae Sadia are to British and European Standards.These appliances are safe and without risk, provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.

1.2 Please read and understand these instructions before starting work and retain them for later use.

1.3 DO NOT operate the appliance if it is frozen, or suspected of being frozen. See fault finding table.

1.4 These heaters are of the closed outlet type (unvented pressure system) and are suitable for connection to normal cold water mains supplies up to a maximum of 0.7MPa (7bar)

1.5 DO NOT operate the appliance if:
1. Water ceases to flow during use.
2. Water has entered inside the unit because of an incorrectly fitted cover.
3. If the appliance is damaged.
(in all cases turn off mains power)

1.6 ISOLATE the electrical and water supplies before removing the cover.

1.7 ISOLATE the electrical and water supplies BEFORE proceeding with installation or servicing.

1.8 The product is NOT SUITABLE for mounting into steam rooms or steam cubicles.

1.9 The installation must be carried out in accordance with the relevant requirements of:
• The appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland) or Building Regulations (Northern Ireland).
• The Water Fittings Regulations or Water Byelaws in Scotland.
• The IEE Wiring Regulations - BS7671.

CAUTION

1.10 It is recommended that persons who may have difficulty understanding or operating the controls should not be left unattended whilst using the appliance. Special consideration should be given to young children and persons with reduced physical, sensory, or mental capabilities.

1.11 Only use designated entry points for cable and pipe.

PLUMBING

1.12 The plumbing installation must comply with Water Regulations.

1.13 The supply pipe must be flushed to clear debris.

1.14 DO NOT solder pipes or fittings within 300mm once the pipe work is located in the appliance, as heat transfer can damage components.

1.15 All plumbing connections must be completed and checked for leaks before making the electrical connections.

ELECTRICAL

1.16 Before fitting the appliance, ensure that the consumer unit and any switches are suitable for the additional load. If in doubt, contact your electricity supplier or a qualified electrician.

1.17 The installation must comply with the latest BS 7671 'Requirements' for Electrical Installations' (IEE Wiring Regulations).

1.18 This appliance must be earthed.

1.19 A residual current device (rcd), formerly known as an earth leakage circuit breaker (elcb), with a tripping current of 30mA must be incorporated in the circuit.

2.0 INSTALLATION - WATER SUPPLY

WATER REQUIREMENTS

2.1 The heater must be connected via the tee piece and **pressure relief valve** to a cold supply having a minimum pressure of 0.1Mpa (1bar) and a maximum of 0.7Mpa (7bar). Both inlet and outlet connections are suitable for 15mm diameter copper pipe. Outlet pipe from unit may reduce to 10mm diameter to improve performance.

2.2 The tee piece and pressure relief valve must be situated where shown and the relief valve discharge port plumbed via an air break (tundish) to a safe, visible place where there is no risk from hot water to persons using the building.

2.3 The discharge pipe must fall continuously from the valve outlets and be unobstructed.

2.4 The provision of a service stop valve in the cold supply pipe will assist in the event of any subsequent servicing or maintenance.

2.5 To obtain optimum performance a flow restrictor (isolating ball valve) must be fitted where shown (see figure 3). This provides the user with the means to govern the flow (and therefore temperature which is dependent upon flow) at the outlet (see under SETTING FLOW RATE).

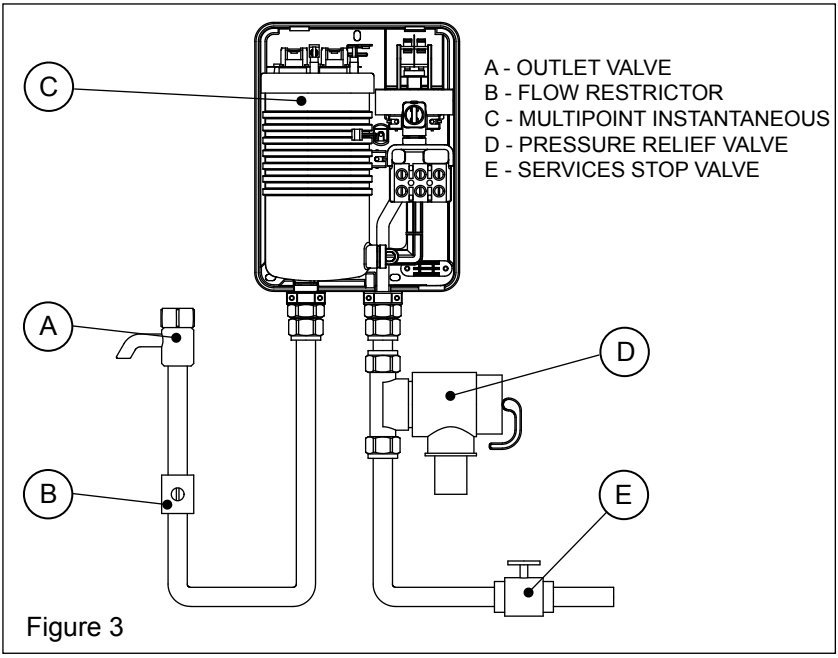


Figure 3

3.0 INSTALLATION - ELECTRICAL REQUIREMENTS

ELECTRICAL REQUIREMENTS

3.6 **This appliance must be earthed.**

3.7 The installation, supply cable and circuit protection must conform to the latest BS7671 'Requirements for electrical installations' (IEE Wiring Regulations).

3.8 The Multipoint Instantaneous heater must only be connected to a 230/240V ac supply.

3.9 Before making any electrical connections within the installation, make sure that no terminal is live. If in doubt, SWITCH OFF the whole installation at the consumer unit or switch fuse (where fitted).

3.10 The Multipoint Instantaneous heater must be connected to its own independent electrical circuit.

3.11 Check that your consumer unit (main fuse box):

1. has a main switch rating of 80A or above.

2. has a spare fuse way which will take the fuse/mcb you need to fit - see Fig. 4. If so, you can wire the Multipoint Instantaneous direct to the spare fuse of your consumer unit via a suitable rated isolated switch- see Fig.4. Note that not all consumer units accept a 35/40/45A sized fuse.

3.12 If point 3.11, 1 and 2 are not achievable, the installation is not straight forward, since it could involve installing a new consumer unit to serve the whole house or just the Multipoint Instantaneous. You will need to call in your Regional Electricity Company to check the circuit and make the connections to the meter or service connector block. They will also check the earth bonding of items in the bathroom.

3.13 **A residual current device (rcd**), formerly known as an earth leakage circuit breaker (elcb), with a tripping current of 30mA must be incorporated in the circuit.

3.14 **A double-pole isolating switch** (rated at 30A for 7kW, 40A for 9kW, and 50A for 12kW), with a contact separation of at least 3mm in each pole, must be incorporated in the circuit. This must have a mechanical indicator showing when the contacts are open. An indicator lamp alone is not sufficient. Only cord operated switches are fitted in bathrooms.

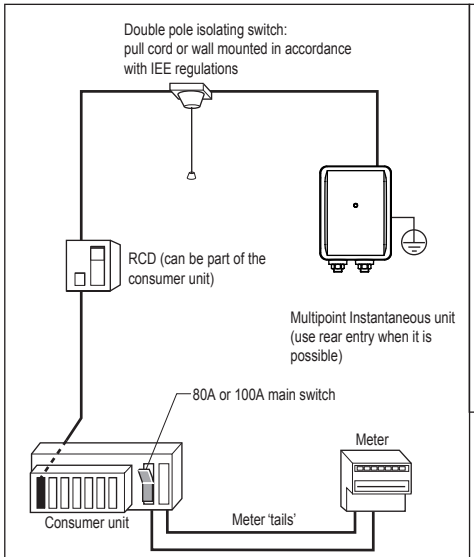


Figure 4

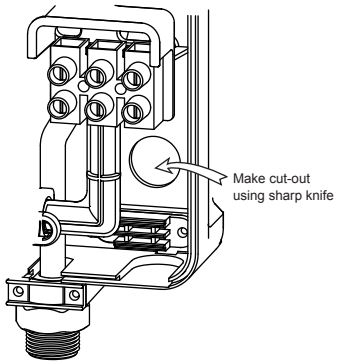


Figure 5 - Rear cable entry

4.0 INSTALLATION - MOUNTING

PREPARATION

4.1 Remove the fixing screw which holds the front cover onto the back plate of the Multipoint Instantaneous heater. Carefully remove the cover.

4.2 The unit must be mounted on a flat surface, which covers the full width and length of the back plate. It is important that the wall surface is flat otherwise difficulty may be encountered when fitting the cover.

4.3 DO NOT fit the Multipoint Instantaneous to the wall and tile up to the case. It must be fitted on to a finished flat and even wall surface. This allows removal for servicing.

CABLE ENTRY

4.4 Cable entry can be from the rear (preferred see Figure 5) or from the bottom. When opting for bottom entry make cut-out to suit cable before fitting back plate to the wall.

4.5 Fix the Multipoint Instantaneous heater loosely to the wall. The wallplugs provided are suitable for most brick walls (use a 6.5mm diameter masonry drill), but if your wall is plasterboard or soft building block, you should use special wallplugs and an appropriate drill, obtainable from most hardware stores.

PLUMBING

4.6 Decide where to connect to the water mains for your feed to the Multipoint Instantaneous. Ensure that the pipe you have selected is not a gas pipe, a hot water pipe, or from a cold water storage tank.

4.7 Cut the necessary pipe work to length, assemble and offer up to the installation before making any soldered joints. Ensure that the pipe is the correct length, as shortening it can be difficult once joints have been made.

4.8 An isolating stop valve MUST be incorporated to the main water supply to comply with Water Regulations

4.9 Assemble the installation before making any soldered joints to ensure that the pipe is the correct length. DO NOT use jointing compounds on any pipe fittings for the installation.

4.10 Remove the unit before soldering the connections.

4.11 It is essential to flush the pipe in order to clear debris, particles of solder and swarf.

4.12 Turn the water off after flushing using the isolating stop valve.

4.13 Connect the cold water supply pipe to the inlet of the Multipoint Instantaneous, this is a 1/2”BSP connection.

4.14 Fit top and bottom screws and secure the back plate to the wall ensuring that it is level.

4.15 Connect all other components as per Figure 3.
4.16 Turn the isolating stop valve on slowly and check for leaks in all pipe work, rectify as necessary.
4.17 Turn off the isolating stop valve.
4.18 Place the cover onto the back plate.
4.19 Secure the cover to back plate using screw provided.

5.0 COMMISSIONING

5.1 Once installed, the heater will operate automatically when the outlet valve is opened. The valve must be opened fully to obtain the set flow/temperature. Reduced flow at the outlet will result in hotter water being delivered.
5.2 On closing the outlet valve the heating element will automatically shut down once flow is reduced to a small amount.

SETTING FLOW RATE

5.3 To set the flow rate, make sure the water and power are turned off. Open the outlet valve fully (see figure 3) and close the flow restrictor. Open the stop valve and open the flow restrictor (allowing all air to be purged). When all air is purged switch the power on, wait for a few seconds while the water is heated and adjust flow restrictor to suit the required temperature. Remember the outlet valve is fully opened at this point so the required temperature may need further adjustment.
5.4 It is important to note when setting the flow rate/temperature that 48°C is the point at which the average person cannot hold his or her hand under a stream of water. Under most circumstances water temperature need not be higher than this and it is recommended that this temperature is not exceeded.
5.5 These heaters will supply only one outlet at any time and must be controlled by a single outlet valve. DO NOT USE WITH MIXER VALVES.

6.0 MULTIPLE INSTALLATION

6.1 When larger volumes of water are required than can be provided by one heater, multiple installations can be made by connecting a number of heaters in PARALLEL of the cold feed manifold (See Figure 6). This is the ONLY method that is recommended. DO NOT plumb these heaters in series.

6.2 To set the heaters in this arrangement use the appropriate procedure as described previously. Each heater in parallel must be set individually.

6.3 In this application restrictors capable of closing flow completely should be used so that as each heater is set in turn, the other heaters in the installation may be isolated.

NOTE - In this application it is advisable especially where low flow rates exist to plumb the cold manifold in 22mm pipe with 15mm pipe spurs to each heater.

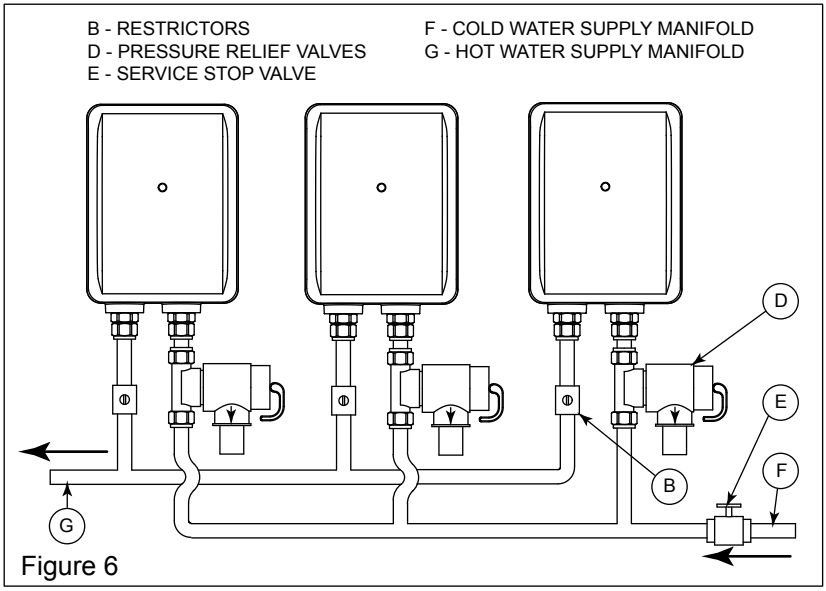


Figure 6

7.0 FAULT FINDING

YOUR HEATRAE SADIA MULTIPOINT INTANTANEOUS SHOULD GIVE TROUBLE FREE OPERATION. HOWEVER SHOULD A FAULT OCCUR THE TABLE BELOW SHOULD ALLOW MOST FAULTS TO BE IDENTIFIED. FAULT FINDING SHOULD ONLY BE CARRIED OUT BY A COMPETENT PERSON.

SYMPTOM	POSSIBLE CAUSE	REMEDY
1. Water too hot	A. Water flow too low	Increase the flow by turning the water control
2. Water too cold	A. Electrical power to the Multipoint heater is off	Ensure that the electronics to the Multipoint Instantaneous is switched on and the neon are lit
	B. Water flow too high	Reduce the flow by turning the water control
	C. Element fault	Check for open circuit
3. Temperature varies while showering, cycling hot/cold	A. Pressure switch is operating, normally making a "click" as it does so	Check water pressure/flow
	B. Input pressure is below 1.0 bar (14.5psi); flow is not stable	Ensure that your stop cock and servicing valve are opened fully
4. "Power on" indicator not lit. Isolating switch "ON" but its neon not lit	A. Cartridge fuse or miniture circuit breaker (mcb) has operated in your fusebox (or consumer unit) or switch fuse	Switch off Multipoint Instantaneous and isolating switch. Renew fuse, reset the mcb. If they operate a second time, contact a qualified electrician
	B. Residual current device (rcd) or (earth leakage circuit breaker) has operated	Follow the same procedure as above. If this has happened with a "split load" consumer unit on initial installation, check that the neutral core of the Multipoint Instantaneous feed cable is connected to the "protected" neutral bar of the unit
5. Water emerges from pressure relief valve	A. PRV has operated	1. Switch off immediately at isolating switch 2. Turn water off at the servicing valve (if fitted) or stop valve 3. Contact Heatrae Sadia Service Department
6. No water flows with valve open	A. Water supply turned off	Turn on water supply
	B. Unit frozen	Turn **OFF ELECTRICITY** at isolating switch and contact installer DO NOT USE THE MULTIPOINT INSTANTANEOUS

For any faults that cannot be identified using the Fault Finding chart please contact the Heatrae Sadia Service Department, telephone 0844 871 1535, fax 0844 871 1528.

8.0 SPARE PARTS

The following comprehensive list of spare parts is available for your Multi-point instantaneous water heater. Please refer to the rating label on the right hand side of your heater before ordering to ensure the correct spare parts are obtained.

DO NOT REPLACE WITH PARTS NOT RECOMMENDED BY HEATRAE SADIA - THIS WILL INVALIDATE YOUR GUARANTEE AND MAY RENDER THE INSTALLATION DANGEROUS.

Description	Code No
1. Heat Exchanger 7kW	95 606 965
Heat Exchanger 9kW	95 606 966
Heat Exchanger 12kW	95 606 970
2. Temperature limiter 1	95 612 035
3. Temperature limiter 2	95 612 036
4. Pressure differential switch assembly 7kW	95 613 005
Pressure differential switch assembly 9kW	95 613 004
Pressure differential switch assembly 12kW	95 613 006
5. Multipoint instantaneous cover	95 614 108
6. Neon assembly	95 615 058
7. Inlet boss assembly	95 607 106
8. Outlet boss assembly	95 607 109
9. Terminal Block	95 607 249

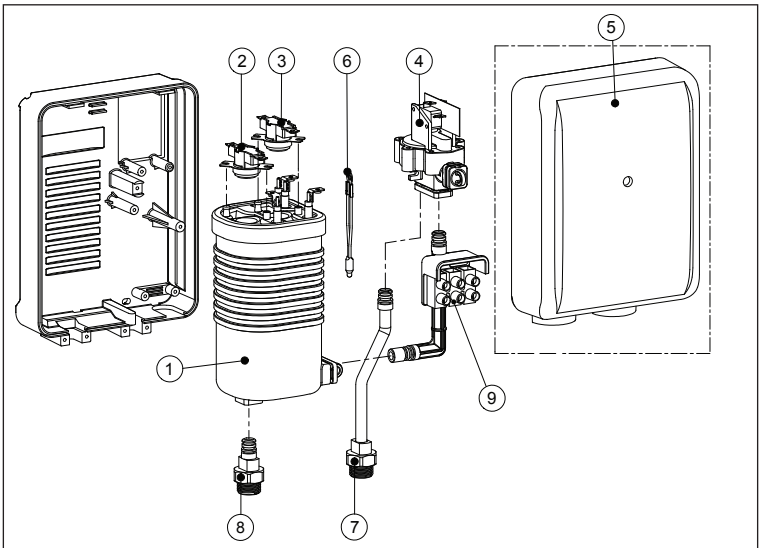


Figure 7

9.0 GUARANTEE

This Multipoint instantaneous water heater is guaranteed for a period of two years from the date of purchase provided:

1. The unit has been installed in accordance with these instructions and all necessary inlet, vent and electrical connections have been fitted correctly.
2. Any valves or controls are of Heatrae Sadia recommended type.
3. The unit has not been tampered with and has been regularly maintained as detailed in the maintenance instructions.
4. The unit has been used only for heating potable water.

The unit is not guaranteed against damage by frost or due to the build up of scale. Please note that if Heatrae Sadia personnel or agents are requested to descale a unit, this work will be chargeable.
This guarantee does not affect the statutory rights of the consumer.

The policy of Heatrae Sadia is one of continuous product development and, as such, we reserve the right to change specifications without notice.

ENVIRONMENTAL INFORMATION

This product is manufactured from many recyclable materials. At the end of its useful life it should be disposed of at a Local Authority Recycling Centre.

Notes:

Spares Stockists

For the fast and efficient supply of spares please contact the stockists listed below.

Electric Water Heating Co.
2 Horsecroft Place, Pinnacles
Harlow, Essex, CM19 5BT
Tel: 0845 0553811
E-Mail: sales@ewh.co.uk

SPD
Units 9 & 10 Hexagon Business Centre
Springfield Road, Hayes
Middlesex, UB40 0TY
Tel: 020 8606 3567

Parts Center
Tel: 0845 270 9801
www.partscenter.co.uk

Newey & Eyre
Specialist Products Division
Please contact your local branch

UK Spares Ltd.
Tower Lane, Warmley
Bristol, BS30 8XT
Tel: 0117 961 6670

William Wilson Ltd.
Unit 3A, 780 South Street
Whiteinch, Glasgow, G14 OSY
Tel: 0141 434 1530

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